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REMARKS

Claims 1-5, 7-8, and 10-22 are all the claims presently pending in the application. Claims 1-3, 7, 13, and 18-21 are amended to more clearly define the invention. Claims 1, 3, and 19-20 are independent.

These amendments are made only to more particularly point out the invention for the Examiner and not for narrowing the scope of the claims or for any reason related to a statutory requirement for patentability.

Applicants also note that, notwithstanding any claim amendments herein or later during prosecution, Applicants' intent is to encompass equivalents of all claim elements.

Entry of this §1.116 Amendment is proper. Since the Amendments above narrow the issues for appeal and since such features and their distinctions over the prior art of record were discussed earlier, such amendments do not raise a new issue requiring a further search and/or consideration by the Examiner. As such, entry of this Amendment is believed proper and Applicant earnestly solicits entry. No new matter has been added.

Claims 1 and 21-22 stand rejected under 35 U.S.C. § 102() as being anticipated by the Coughlin Jr. et al. reference.

This rejection is respectfully traversed in the following discussion.

I. THE CLAIMED INVENTION

An exemplary embodiment of the claimed invention, as defined by, for example, independent claim 1, is directed to a state saving circuit that includes a first latch capable of

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performing a desired operation, a second latch capable of saving the state of the first latch and of restoring the state of the first latch upon the powering up of the first latch. A control signal determines whether the second latch is in one of a state saving mode and a state restoring mode. The second latch being powered by a power supply.

Conventional state saving latches, such as those disclosed by the applied references, require more than one control signal to accomplish both a save and a restore.

In stark contrast, the present invention provides a control signal that determines whether the second latch is in one of a state saving mode and a state restoring mode. This feature is important because the present invention does not require a separate clock signal to restore the state of any attached device. Thus, the present invention does not suffer from the delays of conventional state saving latches and does not adversely impact the responsiveness of the device that may have its state restored by the inventive state saving latch ([0021]).

II. THE 35 U.S.C. § 112, SECOND PARAGRAPH REJECTION

The Examiner alleges that claims 1-5, 7-8, and 10-22 are indefinite. While Applicants submit that such would be clear to one of ordinary skill in the art to allow them to know the metes and bounds of the invention, taking the present Application as a whole, to speed prosecution claims 1-3, 7, 13, and 19-21 have been amended in accordance with Examiner Wells' very helpful suggestions.

In view of the foregoing, the Examiner is respectfully requested to withdraw this rejection.

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III. THE PRIOR ART REJECTION

Regarding claims 1 and 21-22, the Examiner alleges that the Coughlin Jr. et al. reference teaches the claimed invention. Applicants submit, however, that there are elements of the claimed invention which are neither taught nor suggested by the Coughlin Jr. et al. reference.

The Coughlin Jr. et al. reference does not teach or suggest the features of the present invention including a second latch capable of saving the state of the first latch and of restoring the state of the first latch upon the powering up of the first latch. As explained above, this feature is important for obviating the need for a separate clock signal, for improving the speed with which a state may be restored and, therefore, improves the responsiveness of any device attached to the present invention.

Rather, and in stark contrast, the Coughlin Jr. et al. reference discloses that the state of latch 14 can be saved in latch 16, but cannot be restored into latch 14 upon the powering up of latch 14.

Conversely, the state of latch 16 cannot be saved in latch 14, unless both latches were initialized to the same state. However, that requires the use of three control signals - C, FENCEN, and B, rather than a control signal that determines whether the second latch is in one of a state saving mode and a state restoring mode as recited by independent claim 1. Thus, although the state of latch 14 can be restored into latch 16 using a single control signal, the state of latch 16 cannot be saved into latch 14 using a single control signal.

With an exemplary embodiment of the present invention, if a first latch loses its state because power is interrupted, the second latch either receives (saves) the state from the first latch,

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or restores the state from the second latch to the first latch as the power to the first latch is restored, based upon a control signal that determines whether the second latch is in one of a state saving mode and a state restoring mode as recited by independent claim 1.

For example, with reference to Figure 3, when the FENCEN signal is high, the state-saving latch ("second latch") receives its state from another latch ("first latch"). When the FENCEN signal is low, the state-saving latch preserves that state even if the first latch is powered down and restores that state to the first latch as the power is restored.

Clearly, the Coughlin Jr. et al. reference does not teach or suggest the features recited by independent claim 1 including a second latch capable of saving the state of the first latch and of restoring the state of the first latch upon the powering up of the first latch and a control signal that determines whether the second latch is in one of a state saving mode and a state restoring mode.

Therefore, the Coughlin Jr. et al. reference does not teach or suggest each and every element of the claimed invention and, the Examiner is respectfully requested to withdraw this rejection of claims 1 and 21-22.

IV. FORMAL MATTERS AND CONCLUSION

In view of the foregoing amendments and remarks, Applicants respectfully submit that claims 1-5, 7-8, and 10-22, all the claims presently pending in the Application, are patentably distinct over the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

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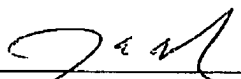
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Should the Examiner find the Application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

The Commissioner is hereby authorized to charge any deficiency in fees or to credit any overpayment in fees to Assignee's Deposit Account No. 09-0456.

Respectfully Submitted,

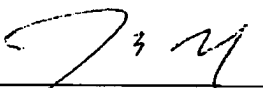
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CERTIFICATION OF FACSIMILE TRANSMISSION

I hereby certify that I am filing this Amendment by facsimile with the United States Patent and Trademark Office to Examiner Kenneth B. Wells, Group Art Unit 2816 at fax number (703) 872-9306 this 7th day of December, 2004.


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